

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (Previously presented) A handheld pipette including:

a body portion having a vertical central axis longer than a horizontal central axis and shaped to fit in an operator's hand, wherein the body portion has a lowermost surface forming a base extending perpendicular or substantially perpendicular to the vertical central axis of the body portion and permitting the pipette to stand on a surface with the vertical central axis of the body portion perpendicular or substantially perpendicular to the surface;

a nozzle portion extending from a point on said body portion and at a downward angle θ of approximately 60° to 80° to the vertical central axis of said body portion;

a pipette tip mounted to an end of the nozzle portion in fluid communication with the nozzle portion, wherein at least the angle θ of said nozzle portion to the vertical central axis of said body portion and length of said pipette tip mounted to the end of said nozzle portion are selected such that said

pipette tip does not touch the surface when the pipette is standing on the surface;

at least one button located on the top of the body portion and operable by a thumb of the operator to effect aspiration of liquid into the pipette tip mounted to the end of the nozzle portion and dispensing of the liquid from the pipette tip mounted to the end of the nozzle portion, the at least one button being further operable such that pressing of the at least one button by the thumb of the operator initiates the aspiration and the dispensing, the at least one button being aligned with or substantially aligned with the vertical central axis of the body portion; and

wherein the base allows the tip to remain mounted to the nozzle portion when the pipette is standing on the surface and any liquid in the tip is prevented from moving back into the body portion because of the downward angle θ of the nozzle portion.

Claim 2 (Previously presented) The handheld pipette as claimed in claim 1 where said angle θ is approximately 70° to said vertical central axis.

Claim 3 (Previously presented) The handheld pipette as claimed in claim 1 wherein said angle θ is adjustable.

Claim 4 (Previously presented) The handheld pipette as claimed in claim 1 wherein said angle θ is such as to permit at least one of the operator's wrist, elbow and shoulder to be in a substantially natural position when the pipette is performing a pipetting operation.

Claim 5 (Previously presented) The handheld pipette as claimed in claim 1 wherein said angle θ is such that any tip mounting force is in a direction causing a major component of the force to be applied against and substantially perpendicular to a portion of the operator's hand grasping said body portion which is substantially between a second joint of the operator's fingers and a point slightly behind the operator's knuckles.

Claim 6 (Previously presented) The handheld pipette as claimed in claim 1 including a hook extending from a point on said body portion which is sufficiently angularly spaced from the point from which said nozzle portion extends to permit the hook to fit over a selected portion of the operator's hand when the pipette is being held by the operator in a position of use.

Claim 7 (Previously presented) The handheld pipette as claimed in claim 6 wherein said hook is adjustable to change at least one of an angle by which the hook is spaced from the nozzle portion, a height on the body portion for the point from which the hook extends and an angle of the hook relative to said vertical central axis.

Claim 8 (Previously presented) The handheld pipette as claimed in claim 6 wherein said hook is removably mounted to said body portion, said hook being replaceable with a hook of different size/shape to accommodate at least one of user preference and different hand sizes.

Claims 9-11 (Previously canceled)

Claim 12 (Previously presented) The handheld pipette as claimed in claim 1 wherein said at least one button is operated in a direction at a selected angle to said nozzle portion.

Claim 13 (Previously presented) The handheld pipette as claimed in claim 1 wherein said at least one button is shaped

to minimize contact pressure on the operator's hand when the at least one button is operated.

Claim 14 (Previously presented) The handheld pipette as claimed in claim 1 including a button on said body which controls ejection of the tip from said nozzle portion, said button being shaped to minimize contact pressure on the operator's hand when the button is operated.

Claim 15 (Previously presented) The handheld pipette as claimed in claim 1 wherein a position of the nozzle portion and the angle θ are such that an end of the nozzle portion adjacent said body portion is closely adjacent the index finger of the operator when properly held.

Claims 16-17 (Previously canceled)

Claim 18 (Previously presented) The handheld pipette as claimed in claim 1 wherein said body portion has a bottom which is removable at least in part to provide access to the pipette.

Claim 19 (Previously presented) The handheld pipette as claimed in claim 1 including an adapter selectively mountable

to said body portion, said adapter adjusting the size of said body portion to better fit operator hand size.

Claim 20 (Previously presented) The handheld pipette as claimed in claim 1 including padding on at least a portion of said body portion.

Claim 21 (Previously presented) The handheld pipette as claimed in claim 1 wherein portions of said pipette which come in contact with the operator's hand are shaped to minimize contact pressure for the operator's hand during operation of the pipette.

Claim 22 (Previously presented) The handheld pipette as claimed in claim 21 wherein the portions of said pipette which come in contact with the operator's hand are shaped so that the contact pressure at no point on said pipette exceeds 14 psi.

Claim 23 (Previously presented) The handheld pipette as claimed in claim 1 wherein said nozzle portion extends from a point on an upper section of said body portion.

Claim 24 (Previously presented) The handheld pipette as claimed in claim 1 wherein said body portion is shaped and said nozzle portion is positioned such that when the pipette is held in an operating position, the nozzle portion is at an angle substantially perpendicular to the operator's forearm.

Claim 25-80 (Previously canceled)

Claim 81 (Previously presented) A handheld pipette, comprising:

a body portion having a vertical central axis longer than a horizontal central axis and being shaped to fit in an operator's hand, the body portion including a lowermost surface forming a base extending perpendicular or substantially perpendicular to the vertical central axis of the body portion and permitting the pipette to stand on a surface with the vertical central axis of the body portion perpendicular or substantially perpendicular to the surface;

a nozzle portion extending from a point on an upper section of the body portion and at a downward angle θ within a range of approximately 60° to 80° with respect to the vertical central axis;

a pipette tip mounted to an end of the nozzle portion in fluid communication with the nozzle portion;

a button located on a top of the body portion and operable by a thumb of the operator to effect aspiration of liquid into the pipette tip mounted to the end of the nozzle portion and dispensing of the liquid from the pipette tip mounted to the end of the nozzle portion and to effect aspiration and dispensing of air through the nozzle portion, the button being further operable such that pressing of the button by the thumb of the operator initiates the aspiration and the dispensing, the button being aligned with or substantially aligned with the vertical central axis;

wherein the base allows the tip to remain mounted to the nozzle portion when the pipette is standing on the surface and any liquid in the tip is prevented from moving back into the body portion because of the downward angle θ of the nozzle portion; and

a hook mounted to the body portion and extending from a point at an end or at substantially the end of the upper section of the body portion, the hook being angularly spaced by an angle ϕ from the point from which the nozzle portion extends, wherein

at least the angle θ of the nozzle portion to the vertical central axis of said body portion and a length of the pipette tip mounted to the end of the nozzle portion are selected such that the tip does not touch the surface when the pipette is standing on the surface with the vertical central axis of the body portion perpendicular or substantially perpendicular to the surface.

Claim 82 (Previously presented) The handheld pipette as claimed in claim 81, wherein

the angle θ is adjustable.

Claim 83 (Previously presented) The handheld pipette as claimed in claim 81, wherein

the hook is adjustable to change at least one of the angle Φ , a height on the body portion for the point from which the hook extends, and an angle of the hook relative to the vertical central axis.